Notice of Allowability	Application No.	Applicant(s)	
	09/915,363	JETTE ET AL.	
	Examin r	Art Unit	
	Kevin S Wood	2874	
The MAILING DATE of this communication apperature All claims being allowable, PROSECUTION ON THE MERITS IS herewith (or previously mailed), a Notice of Allowance (PTOL-85) NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT R of the Office or upon petition by the applicant. See 37 CFR 1.313	(OR REMAINS) CLOSED in or other appropriate commits IGHTS. This application is	n this application. If not inclu- unication will be mailed in du- subiect to withdrawal from iss	ded e course. <b>THIS</b>
2. The allowed claim(s) is/are 36-73.			
3. The drawings filed on 10 October 2001 are accepted by the	e Examiner.		
<ul> <li>4.  Acknowledgment is made of a claim for foreign priority unanalysis.</li> <li>a)  All b)  Some* c)  None of the:</li> <li>1.  Certified copies of the priority documents have 2.  Certified copies of the priority documents have 3.  Copies of the certified copies of the priority do International Bureau (PCT Rule 17.2(a)).</li> <li>* Certified copies not received:</li> </ul>	e been received. e been received in Applicatio	on No	ation from the
Applicant has THREE MONTHS FROM THE "MAILING DATE" noted below. Failure to timely comply will result in ABANDONN THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.	of this communication to file IENT of this application.	e a reply complying with the re	equirements
5. A SUBSTITUTE OATH OR DECLARATION must be subm INFORMAL PATENT APPLICATION (PTO-152) which give	itted. Note the attached EX es reason(s) why the oath o	AMINER'S AMENDMENT or larger of the community of the comm	NOTICE OF
6. ☐ CORRECTED DRAWINGS ( as "replacement sheets") mus  (a) ☐ including changes required by the Notice of Draftspers  1) ☐ hereto or 2) ☐ to Paper No./Mail Date  (b) ☐ including changes required by the attached Examiner's Paper No./Mail Date  Identifying indicia such as the application number (see 37 CFR 1 each sheet. Replacement sheet(s) should be labeled as such in the state of the property of the sheet of the shee	son's Patent Drawing Review . s Amendment / Comment or .84(c)) should be written on the	r in the Office action of	e back) of
<ol> <li>DEPOSIT OF and/or INFORMATION about the depo attached Examiner's comment regarding REQUIREMENT</li> </ol>	SIT OF BIOLOGICAL MATE FOR THE DEPOSIT OF BIO	ERIAL must be submitted. DLOGICAL MATERIAL.	Note the
<ul> <li>Attachment(s)</li> <li>1.  Notice of References Cited (PTO-892)</li> <li>2.  Notice of Draftperson's Patent Drawing Review (PTO-948)</li> <li>3.  Information Disclosure Statements (PTO-1449 or PTO/SB/0 Paper No./Mail Date 4/26/02</li> <li>4.  Examiner's Comment Regarding Requirement for Deposit of Biological Material</li> </ul>	6. ☐ Interview S Paper No./ 8), 7. ☐ Examiner's	formal Patent Application (PT ummary (PTO-413), /Mail Date Amendment/Comment Statement of Reasons for All	
		Brian Healy Primary Examiner	7

# DETAILED ACTION

# **Preliminary Amendment**

 The Preliminary Amendment filed on 9 June 2004 has been received and entered. Claims 1-35 are cancelled. New claims 36-73 have been added. Claims 36-73 are pending in the application.

### **Drawings**

2. The drawings were received on 10 October 2001. These drawings are accepted by the examiner.

## Allowable Subject Matter

- 3. Claims 36-73 are allowed.
- 4. The following is an examiner's statement of reasons for allowance:

Referring to claims 36-73, the instant application is deemed to be directed to a nonobvious improvement over the invention patented in U.S. Patent No. 6,444,321 (Berini et al.). The Berini et al. reference shares an inventor, Pierre Simon Joseph Berini, and the assignee, Spectalis Corp, with the instant application. The Berini et al. reference discloses an optical device including a waveguide structure formed by a thin strip of material having a relatively high free charge carrier density surrounded by a material having a relatively low free charge carrier density, the strip having a finite width and thickness with dimensions such that optical radiation having a wavelength in a predetermined range couples to the strip and propagates along the length as a

plasmon-polariton wave. The Berini et al. reference does not disclose a grating, for filtering optical radiation, formed of a plurality of sections of these waveguide structures where each adjacent structure has physical characteristics that differ from the physical characteristics of adjacent sections. The examiner believes that the use of the waveguides disclosed in the Berini et al. reference as sections of a grating, where the physical characteristics of each waveguide section differ from the adjacent waveguide sections, is a nonobvious improvement.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

#### Conclusion

- 5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.
  - U.S. Patent No. 6,034,809 to Anemogiannis
  - U.S. Patent No. 4,765,705 to Seymour et al.

Each of these references discloses gratins used for coupling plasmon-polariton waves. Neither discloses the gratings being formed from a plurality of sections of waveguide structures where each adjacent structure has physical characteristics that differ from the physical characteristics of adjacent sections.

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6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin S Wood whose telephone number is (571) 272-2364. The examiner can normally be reached on Monday-Thursday (7am - 5:30 pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rodney B Bovernick can be reached on (571) 272-2344. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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